

DE 3203479 describes essential metal ion complexes of oligo- or poly-galacturonic acid of the general structural formula as given in claim 1 with n being an integer of 10 to 145 and M^{z+}

indicating at least two of the metal cations Fe^{+2} , Cu^{+1} , Cu^{+2} , Mg^{+2} , K^{+1} , Co^{+2} , Mg^{+2} , Zn^{+2} , Cr^{+3} , Mo^{+5} , V^{+4} and Ni^{+2} , and wherein z is a number indicating the average of the integral loadings or valencies of the respective metal atoms according to their ratios.

The document further describes a method for producing compounds according to the one mentioned above whereby in a known matter a oligo- or poly-galacturonic acid of the general structural formula as given in claim 6 with n being defined as mentioned above is converted on the solid state or in aqueous and/or polar organic solution with salts containing M^{z+} ions having a lower stability constant than the metal ion complex of oligo- or poly-galacturonic acids to be produced, and, in the case that M^{z+} contains potassium ions, optional also with potassium hydroxide, wherein M^{z+} is defined as mentioned above, or with an oxidised for of these reaction partners. In addition to this conversion, a reduction of the produced metal ion complex of oligo- or poly-galacturonic acids is carried out in case of an input of metal ions in a higher oxidation level than according to the determination of M^{z+} .